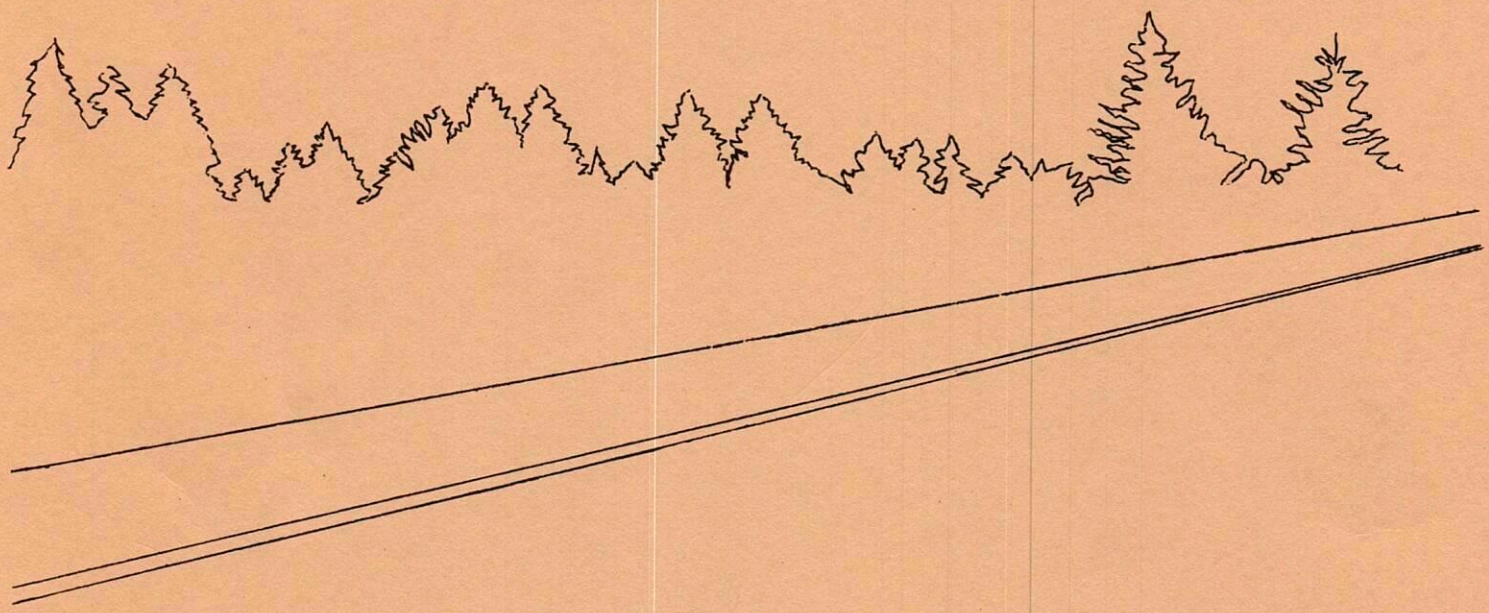
REVISED ENVIRONMENTAL ASSESSMENT

7th STREET TO 9th STREET



KLASKANINE AVENUE

City of Astoria
Clatsop County, Oregon

Federal Highway Administration
and
Oregon Department of Transportation

NEIL GOLDSCHMIDT
GOVERNOR

Department of Transportation
HIGHWAY DIVISION
TRANSPORTATION BUILDING, SALEM, OREGON 97310

In Reply Refer to
File No.:
ENV 3

APR 06 1987

TO WHOM IT MAY CONCERN:

This Revised Environmental Assessment/FONSI for the 7th Street to 9th Street project in Clatsop County, Oregon, is being distributed for your information.

If you wish to comment further on the project or its impact, please address your comments to the Federal Highway Administration, The Equitable Center, Suite 100, 530 Center Street N.E., Salem, Oregon 97301.

Sincerely,

for Cam Gilmour, Manager
Environmental Section
Oregon State Highway Division
324 Capitol Street N.E.
Salem, OR 97310

leb

FEDERAL HIGHWAY ADMINISTRATION

FINDING OF NO SIGNIFICANT IMPACT

for

Oregon Project M-4282(1)
7th Street to 9th Street
Klaskanine Avenue - Clatsop County

The FHWA has determined that this project will not have a significant impact on the human environment. This finding is based on the attached environmental assessment which has been independently reviewed by the FHWA and found to adequately and accurately discuss the environmental issues and impacts of the proposed project. It provides sufficient evidence and analysis for determining that an environmental impact statement is not required.

The project will complete Klaskanine Avenue between 7th Street and 9th Street by building a new roadway forty feet wide about five hundred feet long. Eighth Street will be extended about 120 feet to join Klaskanine Avenue. Both new streets will provide two travel lanes with paved shoulders, curbs, and sidewalks.

The FHWA takes full responsibility for the accuracy, scope, and content of the attached environmental assessment.

3/30/87
Date

Robert B. Hathaway
Ass't Division Administrator
Oregon Division, Salem, Oregon

REVISED ENVIRONMENTAL ASSESSMENT

7th Street - 9th Street
Klaskanine Avenue
Clatsop County, Oregon

ORGANIZATION OF THE REVISED ENVIRONMENTAL ASSESSMENT

This Revised Environmental Assessment describes the selected alternative and the public involvement process leading to that selection, and presents changes and additions to the Environmental Assessment (EA) issued July 2, 1986.

Revisions of the EA are presented in this Revised EA as rewritten statements or as comments, and are referenced to the original EA page number. Using this format--described in the Council on Environmental Quality Regulations (paragraph 1508.13) and the Federal Highway Administration Technical Advisory T6640.8 (page 4)--makes it easier for the reader to see where changes have been made. The original Environmental Assessment is available upon request from the Oregon State Highway Division Environmental Section, 324 Capitol Street N.E., Salem, Oregon 97310.

PUBLIC AND AGENCY INVOLVEMENT

The Environmental Assessment was distributed for comments on July 2, 1986, and its availability was announced in the local newspaper. During the specified response period of thirty days, no comments were received and there was no request for a public hearing concerning the proposed project.

In July 1986, the Division of State Lands was contacted for an opinion regarding the forest wetlands in the project vicinity. The district biologist from the Oregon Department of Fish and Wildlife (Seaside office) accompanied Highway Division personnel to the project site to discuss wetlands protection opportunities and obligations. Due to the size, setting and other characteristics of the wetlands, a Fill/Removal permit was not considered necessary as long as the amount of fill material to be placed in wetland habitat would be small. If flatter fill slopes are used, a permit may be required.

In February 1987, the Astoria City Council submitted a letter expressing support for the Build Alternative (see Appendix A). In previous sessions concerning the city's budget, the council allocated funding for this project.

THE SELECTED ALTERNATIVE

The Build Alternative described in the EA has been selected for implementation because the benefits it offers in terms of improved traffic flow can be achieved with negligible impacts on the physical, social, and economic environment of Astoria. A new segment of Klaskanine Avenue, forty feet wide and about five hundred feet long, will connect 7th Street with 9th Street. Eighth Street will be extended about 120 feet southward to join Klaskanine. Both new streets will provide two travel lanes with paved shoulders, plus curbs and sidewalks.

Project construction will involve special features and procedures for ensuring proper drainage, stabilizing the embankment, preventing landslides, and mitigating wetlands impacts. The specific measures to be used are listed in the "Summary of Mitigation and Minimization Measures" on page 7 and are also described in the "Comments and Corrections" section.

WETLANDS FINDING

The following information sets forth the basis for finding that there is no practical alternative to construction in the wetlands adjacent to the Klaskanine Avenue right-of-way between 7th Street and 9th Street in Astoria, and that the proposal to build a two-lane road through that right-of-way includes all practicable measures to minimize harm to the wetlands and to mitigate the resulting loss. This finding is made in accordance with the requirements of Executive Order 11990 and the Department of Transportation Order 5660.1A regarding the protection of wetlands.

ALTERNATIVES TO CONSTRUCTION IN WETLANDS

Several road alignment and embankment design modifications that would not involve placing fill material in the identified wetland habitat were identified and evaluated during the early stages of project design work:

1. Use steeper embankment sideslopes to reduce the area covered by fill material.

2. Lower the grade (elevation) of the roadway to decrease the height and width of the fill.

3. Build a retaining wall to limit the lateral extent of the fill.

4. Locate the road farther north, away from the wetland area.

If the embankment sideslopes were made any steeper than 2:1, expensive measures to prevent failure (slumping) of the embankment would be necessary. Using a lower fill height would conflict with the intended purpose of the project, improved traffic flow, by preventing the planned connection of 8th Street to Klaskanine--the 8th Street extension would have to be steeper than modern standards allow. The use of a retaining wall was initially

evaluated as a way of minimizing the amount of easement needed, but was found to be too expensive in comparison to total project costs. Shifting the alignment away from the wetlands was rejected because of the right-of-way acquisition involved (for either a straight or curved alignment) and the engineering and traffic safety concerns favoring a straight, horizontal roadway connecting the existing segments of Klaskanine Avenue.

Another option that would not cause any wetlands impacts is the No-Build Alternative, but that would not provide the desired improvements in access or traffic flow. The Build Alternative, as described in the EA and this Revised EA, is preferred because it is consistent with the intended scope and purpose of the proposed construction, and because the resulting impacts on wetlands are minimal and can be mitigated on city-owned land adjoining the project area.

IMPACTS

The project area is within a second-growth forest of Sitka spruce and red alder with a shrub layer dominated by alder saplings, elderberry, salmonberry, and blackberry. The ground cover contains several plant species that are tolerant of wet conditions, indicating the rainy climate of Astoria. The wetland area to be affected consists of moist depressions (basins) supporting plants such as skunk cabbage, rushes, and various mosses and ferns that indicate hydric soil conditions. It is part of a small system of interconnected wetland basins fed by intermittent streams. The system covers at least a tenth of an acre and is classified as forest wetland primarily on the basis of its nutrient cycling function. It rates low in all other wetlands functions.

Wetland impacts could result from changes in the amount and quality of water flowing into the wetland area and from filling in existing wetland habitat. The effects on water flow and quality are minor and will be mitigated as described under "Mitigation" below. Embankment construction will involve placing fill material in forest wetland. The amount of wetland to be filled in will depend on the final design of the embankment and the landslide prevention measures implemented. At most, about one-tenth acre of wetland habitat would be buried beneath 2000 cubic yards of material. About two-hundredths of an acre more would be disturbed during project construction.

MITIGATION

The embankment will not be a barrier to the movement of water because a layer of free-draining gravel or sand will be placed under the earth embankment to allow surface runoff to drain beneath the embankment. Subsurface seepage will be maintained and facilitated by perforated drain pipes or other means of transmitting groundwater to the forest wetlands.

The direct impacts of fill placement may be minimized by the use of steep embankment sideslopes. A 2:1 gradient is the steepest slope that is structurally practical, considering the height of the embankment, the available construction materials, and the load-supporting strength of the under-

lying soils. Due to lower construction costs, however, flatter sideslopes will probably be used. The design favored by the City of Astoria calls for 4:1 slopes where the fill height exceeds fifteen feet and 3:1 slopes otherwise. Although the initial wetland impacts will be greater with the flatter sideslopes, new wetland areas are likely to develop over time along the base of the embankment due to the uninterrupted flow of surface and subsurface water into the area. If necessary, a swale or ditch will be constructed to provide lowland areas replacing the basins and channels to be covered by the fill.

To avoid water quality impacts on the wetlands, the storm sewer outlet discharging roadway runoff water will be located about eighty feet from the nearest wetland basin. This distance between the outlet and the wetland area allows pollutants present in the water to be filtered and dispersed before reaching the wetland settling basins. Within a few years, a strip of wetland habitat will develop between the storm sewer outlet and the remaining forest wetland areas, compensating for the loss of wetland acreage to be buried under the road fill. There will be no net loss of wetlands on a long-term basis.

Using the wetland area for storage or disposal of soil, rock, or other construction materials will be prohibited.

COORDINATION AND CONFORMANCE

The proposed action complies with state, local and federal laws and policies and with local land use planning guidelines. Through coordination with Division of State Lands (DSL) and Oregon Department of Fish and Wildlife officials, it was determined that a DSL Fill/Removal permit for actions affecting wetlands would not be required for the Build Alternative described in the EA. The decision was based on the size, setting and limited value of the wetlands involved, and the small amount of fill material to be placed in wetland habitat. Since the publication of the EA, the proposed design of the embankment has been revised. Each of the designs currently under consideration would have greater wetlands impacts than what is reported in the EA. Therefore, a Fill/Removal permit probably will be required.

CONCLUSION

Based on the above considerations, there is no practicable alternative to the proposed construction in wetlands. The proposed action will include all practicable measures to minimize harm to wetlands, and will provide suitable mitigation for the loss of wetlands which may result from such use.

COMMENTS AND CORRECTIONS

The following statements correct or update information published in the Environmental Assesment.

Section A (Page 1, Line 1), change to:

"Cost Estimate $350,000" due to a recalculation incorporating expenses for landslide prevention measures.

Section D (Page 3, Paragraph 1, Line 2), delete:

"...would be financed independently by the City of Astoria, but..."

Section H (Page 3, Paragraph 6), change to:

"Number of Parcels: 5 to 13. Acres: 0.2 to 0.6". The variation is related to the embankment design details still under consideration.

Section H (Page 4, Paragraph 1), change to:

"Slope easements of up to 50 feet will be needed on three privately owned lots. All or part of two to ten lots owned by the City of Astoria may also be covered by the embankment. The amount of land required depends on the slope stabilization measures to be used, and will therefore be determined after the project design is finalized."

Section H (Page 4, between paragraphs 3 and 4), add:

"Persons affected by the right-of-way acquisition may be eligible for reimbursement for the cost of moving personal property. This will be done in accordance with Federal Law 91.646 and the Code of Federal Regulations (CFR) Volume 49, Part 25, as required by Oregon Revised Statutes (ORS 281.045 to 281.105."

Section J (Page 5, Paragraph 4):

As required by Astoria's comprehensive plan, the geological hazards of the project area have been investigated and considered during project design. Highway Division geologists and geotechnical engineers have studied the site. Based on their recommendations, the project will incorporate special drainage systems and landslide prevention measures (see comments pertaining to Section M, below). Road alignments that would not require as much slope excavation and embankment fill were considered but found to be undesirable from a traffic safety standpoint.

Section K (Page 6, Paragraphs 3 and 4):

The design of the embankment is still preliminary. At most, one tenth of an acre of forest wetland would be permanently buried and a few hundredths of an acre more would be disturbed during project construction. There will be no net loss of wetlands on a long-term basis, however. The proposed mitigation measures are discussed in the "Wetlands Finding" on pages 2 through 4 of the Revised EA and in the "Summary of Mitigation and Minimization Measures" on page 7.

Section K (Page 6, Paragraph 3, Lines 5 through 9), change to:

"proposed storm sewer system will discharge roadway runoff water at the base of the embankment fill, about 100 feet east of 8th Street. This will allow pollutants present in the roadway runoff to be filtered before reaching the wetland settling basins."

Section L (Page 7, Paragraph 3, Line 1), delete:

"or prior to". These procedures apply to cultural deposits found during project construction.

Section M (Page 7, Paragraph 5):

Geologists and geotechnical engineers examined the project site on several occasions between January and August 1986. Geological field testing took place in June 1986, followed by laboratory testing of the soil samples obtained. A geotechnical investigation and analysis was completed in August. Based on the results of the testing and analysis, specific measures to minimize the potential for slope failures will be implemented.

To allow drainage beneath the embankment fill, a layer of free-draining gravel or sand will be placed under the earth embankment. Seepage of water from upslope sources will be maintained and facilitated by placing a few perforated drain pipes in the stone embankment or by other means determined by road design engineers.

Due to construction costs, a flatter gradient, such as 4:1, will probably be used for the embankment sideslopes. In some areas, a stable foundation for the embankment may be achieved through sub-excavation--subsurface soils would be dug out and replaced with gravel or sand. Other landslide prevention measures to be implemented include keeping tree removal to a minimum, and minimizing the extent of cut slopes and unfilled trenches exposed at a given time.

In order to accommodate sub-excavation or flatter sideslopes, the slope easement would extend thirty to fifty feet (rather than fifteen feet) into the privately-owned lots south of the Klaskanine Avenue right-of-way, and as much as 150 feet into city-owned property adjoining the project.

SUMMARY OF MITIGATION AND MINIMIZATION MEASURES

HYDROLOGY, WATER QUALITY

1. A layer of free-draining sand or stone will be installed to facilitate drainage under the embankment fill. Drain pipes may also be installed to allow groundwater to seep beneath the road and reach the forest wetlands.

2. Roadway runoff water (which can contain pollutants) will be drained into the storm sewer system. The sewer outlet will be located near the toe of the fill slope, about one hundred feet east of 8th Street. The distance between the outlet and the wetland basins allows for dilution and dispersion of pollutants.

GEOLOGY (Slope Stability)

1. If it is found to be cost-effective, subsurface soils will be sub-excavated and replaced with gravel or sand to provide a suitable foundation for the embankment. Otherwise, slopes will be made flat enough to provide a stable roadway embankment.

2. Tree removal, and the extent of cut slopes and unfilled trenches exposed at a given time, will be kept to a minimum.

WETLANDS

1. If feasible, steep (1-1/2:1 or 2:1) sideslopes will be used to minimize the amount of forest wetland buried by the road fill.

2. The above-mentioned mitigation measures pertaining to hydrology and water quality will ensure the retention and redevelopment of the identified wetland functions in the project area. A strip of wetland habitat will gradually develop between the storm sewer outlet and the existing forest wetland areas, compensating for the loss of the forest wetland to be buried beneath the road fill.

3. A swale or ditch may be constructed to provide lowland areas replacing the basins and channels to be covered by the fill.

4. The use of any wetland area for the storage or disposal of soil, rock, or other construction materials is prohibited.

NOISE

Construction noise will be controlled according to Section 107.32 of Standard Specifications for Highway Construction (OSHD, 1984): see Appendix B.

AIR QUALITY

Dust and other particulates generated during construction will be controlled by spraying water or other dust-reducing agents, as needed.

LAND USE/PROPERTY VALUE

Owners of the properties acquired for slope easements will be offered fair market value for use of the land involved, and will be paid for damages to their remaining property (if such damages occur as a result of the project) in accordance with the "Uniform Relocation Assistance and Real Property Acquisition Policies Act". Eligible persons will be reimbursed for the cost of moving personal property from areas to be acquired as right-of-way.

APPENDIX A

Resolution No. 87-10

A RESOLUTION SUPPORTING THE KLASKANINE AVENUE PROJECT

BE IT RESOLVED BY THE CITY COUNCIL FOR THE CITY OF ASTORIA:

POSITION STATEMENT

The Astoria City Council supports the build alternative for the proposed Klaskanine project. The City Council supports the improvement of Klaskanine Avenue between 7th Street and 9th Street, with the improvement to connect 8th Street to Klaskanine Avenue. The project will assist traffic flow to the Astoria Middle School and Evergreen Park. The City Council requests that Design Alternative No. 3, as detailed in the Environmental Assessment Addendum, be used in the final plans preparation if the alternative meets all the engineering requirements for a stable street requiring minimal maintenance.

ADOPTED BY THE COMMON COUNCIL THIS 17th DAY OF February, 1987.

APPROVED BY THE MAYOR THIS 17th DAY OF February, 1987.

Edwin Henningsgaard
Mayor

ATTEST:

Finance Director

ROLL CALL ON ADOPTION:		YEA	NAY	ABSENT
Commissioners:	Ellsberg	x		
	Van Dusen	x		
	Thiel	x		
	Mathews	x		
Mayor Henningsgaard		x		

APPENDIX B

STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION
Oregon State Highway Division, 1984

Section 107.32 Noise Control

The Contractor shall conduct his operations in conformity to all applicable laws and regulations governing construction noise, as well as ordinances or resolutions enacted or adopted by local authorities for the purpose of controlling construction noise and noise nuisance. Pursuant to the above, means to be exercised by the Contractor include, but are not limited to the following:

(a) General time restrictions:

(a-1) No construction shall be performed within 1,000 feet of any occupied dwelling unit on Sundays, legal holidays and between the hours of 10:00 p.m. and 6:00 a.m. on other days without the approval of the Project Manager.

(a-2) No pile driving or blasting operations, if required, shall be performed within 3,000 feet of any occupied dwelling unit on Sundays, legal holidays and between the hours of 8:00 p.m. and 8:00 a.m. on other days, without the approval of the Project Manager.

(b) Requirements for equipment used on the project:

(b-1) Noise control devices shall be no less effective than those provided on original equipment.

(b-2) Exhausts shall be muffled.

(b-3) Equipment shall comply with pertinent equipment noise standards of the U.S. Environmental Protection Agency.

(c) Requirements during operation - Should a specific noise impact complaint occur during the construction, the Contractor, at his own expense, may be required to implement one or more of the following noise mitigations as directed by the Engineer:

(c-1) Locate stationary construction equipment as far from nearby noise sensitive properties as possible.

(c-2) Shut off idling equipment.

(c-3) Reschedule construction operations to avoid periods of noise annoyance identified in the complaint.

(c-4) Notify nearby residents whenever extremely noisy work will be occurring.

(c-5) Install temporary or portable acoustic barriers around stationary construction noise sources.

(c-6) Place material stockpiles between crushing or screening operations and the affected dwelling.